

## Determinants of Strategic Factors for Digital Transformation in Micro and Small Enterprises in Makassar City

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### Abstract

*The Indonesian government aims to promote information and communication technology (ICT) among micro and small enterprises to enhance their competitiveness in the global market. A survey was conducted among 180 micro and small enterprise owners in Makassar City using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. The results showed that Performance Expectancy (PE) and Effort Expectancy (EE) insignificantly affect the Behavioral Intentions (BI) of the enterprise owners. It also indicated that Social Influence (SI) and Facilitating Conditions (FC) positively influence the adoption of ICT in micro and small enterprises. This study is novel and significant as it addresses a gap in the literature on digital transformation strategies, particularly in Makassar City, where such investigations are rare. Consequently, this study presents an original contribution to the field.*

### Keywords:

technology adoption; micro and small enterprise; unified theory of acceptance and use of technology

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## INTRODUCTION

The Indonesian government is committed to enhancing economic activity and the quality of life for citizens in urban and rural areas by investing in infrastructure development. Technology infrastructure has been instrumental in addressing various challenges, including COVID-19, which hit the country in March 2020. In response, the government implemented large-scale social restrictions, community activity restrictions, and emergency measures to curb the spread of the virus. Using the internet for activities like teaching and learning, remote work, and enterprise transactions has enabled individuals to avoid in-person contact during the pandemic. As technology use increases, some activities can continue to function effectively through digitalization. This trend is expected to continue even as COVID-19 cases decline, vaccines become more available than before, and community activities gradually resume. The pandemic has brought about rapid changes in many aspects of life, forcing everyone to adapt to technology. In the economic sphere, Small and Medium-sized enterprises (SMEs), being more agile and able to adapt to the environment, have replaced larger corporations by leveraging Information and Communication Technology (ICT) to reach customers.

According to the Indonesian Ministry of Cooperatives and Small and Medium Enterprises, micro (UM) and small enterprise (UK) are enterprises with a net worth of at least IDR 200,000,000 (excluding land and buildings) and annual sales of up to IDR 1,000,000,000. Medium enterprises (UM) have a net worth of over IDR 200,000,000 to IDR 10,000,000,000 (excluding land and buildings). Micro, Small, and Medium Enterprise (MSMEs) regulation falls under Law No. 20 of 2008. Based on the data from the Ministry of Cooperatives and Small and Medium Enterprises (2022), there were 65.47 million MSMEs in Indonesia in 2019, a 1.98% increase from the previous year's 64.19 million. This data accounts for 99.99% of all enterprises in this country.

In Indonesia, micro and small enterprise need to adopt ICT as it can leverage the extensive and affordable infrastructure to expand the customer reach. Fiki Satari, the Special Staff of the Minister of Cooperatives and SMEs for Creative Economy Empowerment explained that only around 19% of SMEs (approximately 12 million) had adopted this technology. This data is a notable increase from 2020, when only 13% (approximately 8 million) of SMEs had embraced ICT Humas Kementrian Koperasi dan UKM, 2021). From a marketing perspective, digital marketing not only boosts revenue but also employs recommendation systems, known as electronic word-of-mouth (eWoM), to influence consumer purchasing decisions through products or service recommendation algorithms. Bala & Feng (2019) explained that various factors, such as web presence and internet use, positively affect SMEs' success. Enterprise owners believe that technology can help them attract and communicate effectively with new customers and trade partners. Moreover, the rapid increase in internet penetration enables enterprises to obtain enterprise-related information more efficiently.

According to Rupeika-Apoga et al. (2022), digital transformation positively affects an enterprise's revenue through digital orientation. This condition suggests that SMEs need to consider adopting digital devices to achieve their goals and increase revenue.

These results are consistent with Lanlan et al. (2019), where perceived ease of use and usefulness improve the use of Computerized Accounting Systems (CAS) among MSEs in Xi'an, Shaan Xi, China. The study shows that perceived ease of use and usefulness positively affect CAS use intention through multiple regression analysis. Majinda (2019) explained that Performance Expectancy (PE) significantly affects both Behavioral Intention (BI) and actual usage of Facebook marketing. This result contradicts Venkatesh (2022), where PE failed to predict BI but has the highest coefficient for actual usage. Effort Expectancy (EE) does not affect behavioral intention, suggesting that Facebook marketing is less easy for them. The results of the study conducted by Majinda (2019) are different from those of Rupeika-Apoga et al. (2022) & Lanlan et al. (2019).

Meanwhile, Facilitating Conditions (FC) significantly affect the behavioral intention of Tswana SMMEs to use Facebook marketing. FC insignificantly affects actual usage, and this contradicts the findings of El Ouiridi et al. (2016) and Taiwo (2019). Additionally, a level of digital orientation affects the complexity of its enterprise model through digital transformation (Ardito et al., 2021). SMEs face various challenges in entering the digital market due to their need for more technical skills and a stable ecosystem. This stable digital ecosystem supports the SMEs' growth and competitiveness throughout their operations.

Adopting digital marketing makes SMEs increase revenue, expand their market opportunities, and easily access financial services from banks and other institutions. The UTAUT is currently the most widely accepted theory for predicting the adoption of technology services. According to Venkatesh (2022), UTAUT can accurately predict up to 70% of consumer behavior relating to the use of ICT. UTAUT is based on four critical factors that influence a user's decision to adopt technology: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Condition (FC). By understanding these factors, stakeholders can develop effective strategies for encouraging SMEs to adopt digital marketing.

Micro, Small, and Medium-sized enterprises (MSMEs) are recognized as essential components of national development, particularly economic growth. The presence of MSMEs across various industries makes them create many jobs and contribute significantly to the country's gross domestic product (GDP). Indonesia's supporting MSMEs is crucial as they possess a high workforce that can enhance productivity and coexist with a larger enterprise. Law Number 20 of 2008 stipulates that MSMEs are classified as follows: micro enterprises refer to productive enterprises owned by individuals or entities with specific criteria. Meanwhile, small and medium enterprises are independent economic enterprises conducted by individuals or entities that are not subsidiaries.

Sarfiah et al. (2019) have identified four characteristics of MSMEs in Indonesia, which are essential in understanding their strategic positioning. Firstly, starting a small enterprise is relatively more accessible than a large one, primarily due to financing factors. Secondly, no additional academic training is required to fill positions in MSMEs, making it easier to find and hire talent. Thirdly, unlike large enterprises, MSMEs can operate without urban infrastructure and are often located in rural areas. Lastly, MSMEs have shown resilience during economic downturns, such as Covid-19, which adversely affected

1,785 cooperatives and 163,713 SMEs in the country (Thaha, 2020). The most affected sectors were food and beverage, the creative industries, and agriculture.

Entrepreneurship, which uses technology for product and service marketing, has become increasingly crucial in the pandemic. Meanwhile, digital-based SMEs emerged as a solution to help the sector survive during the pandemic (Arianto, 2020). The government, Ministry of Cooperatives, and SMEs have also encouraged digital transformation to respond to the pandemic's impact on the enterprise ecosystem.

According to Venkatesh (2022), the UTAUT is a theoretical model that has evolved from Technology Acceptance Model (TAM) by Davis (2023). UTAUT has two primary objectives: first, it aims to enhance the understanding of the acceptance process by offering theoretical insights into the design and implementation of information systems. Second, it provides a theoretical framework for practical user acceptance testing, which enables system designers and implementers to evaluate new systems before implementation. The diffusion theory of innovation, developed by Rogers in 1961, is a model that explains how new ideas and technology spread quickly. This theory differs from the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB), which focus on individual motivational factors as predictors of behavior. TPB posit that Behavioral Intentions (BI) are the best indicators influenced by attitudes and social norms. It also adds the concept of perceived behavioral controls to TRA. In recent years, Fishbein and colleagues have proposed using Integrated Behavior Models (IBM) that incorporate elements of other significant theories in addition to TRA and TPB.

Several theories can be used to predict an individual's behavior in terms of adopting information technology systems. One of these theories is the UTAUT, which was introduced by Venkatesh (2022). UTAUT is based on PE, EE, SI, and FC, as well as four moderator variables, including gender, age, experience, and voluntariness of use. This model has gained popularity due to its integrating of eight major theories in the field. Also, it has been tested using a large dataset of real-world data. Other studies have investigated the connection between technology adoption and influencing variables, with both the TAM and UTAUT models having been thoroughly examined. Even after introducing the UTAUT model, literature has continued to use TAM for various technology or has enhanced and validated existing models. This study used UTAUT due to its inclusion of both PE and EE and FC and SI, which are not included in the traditional TAM model. UTAUT is also employed because it considers both intentions to use and actual use and incorporates individual and social factors in predicting technology adoption.

According to Alwahaishi & Snásel (2013), "PE refers to the perceived usefulness of technology, which affects an individual's intention to continue using it." This study measures PE based on the perceived benefits of implementing ICT, such as saving time, money, and effort, improving communication with customers, and enhancing the quality of corporate services (Williams et al., 2015). Meanwhile, EE represents the perceived level of effort required to use technology, which affects user satisfaction. It is assessed based on ICT's perceived utility, ease of use, and availability of support for using these services. SI also

plays a significant role in the intensity of technology use, as individuals tend to follow the recommendations or suggestions of others. Therefore, when adopters of ICT are influenced by positive feedback from social networks, they are more likely to have a strong intention to adopt a system. They are also influenced by the perception of technology aligning with the user's lifestyle. FC refers to the resources and knowledge available to explain the benefits of using technology, which is considered greater than the monetary costs involved (Williams et al., 2015). These conditions are measured by accessing the necessary resources and obtaining the support and knowledge required to use ICT services.

The UTAUT has proven to be effective in predicting technology adoption among SME owners (Rozmi et al., 2019). In a study conducted in Malaysia by Rozmi et al. (2019), three of the five UTAUT factors, including EE, SI, and FC, affect SMEs' intention to adopt ICT in their enterprises. Piarna and Fathurohman (2019) investigated factors influencing the adoption of e-commerce in Subang city. The study found that PE, EE, and SI significantly supported BI toward technology adoption. Furthermore, FC was identified as a key factor affecting user behavior. This study aims to measure the adoption of technology among MSMEs owners in Makassar city using the UTAUT model. The model includes five factors: PE, EE, SI, FC, and BI. This study's conceptual framework and hypotheses are based on these factors.

In the city of Makassar, COVID-19 resulted in a decrease in the original regional income (PAD) from IDR 1.30 trillion in 2019 to IDR 1.08 trillion in 2020. As a response, the government has launched the Makassar City Recover program, which comprises three sub-programs: health immunity, social adaptation, and economic recovery. The economic recovery program includes the Digitalization Payment System, developed by various regional revenue management apparatuses as part of the Local Government Transaction Electronification Program. While the research on technology adoption has been abundant, the adoption among micro and small enterprise owners in Makassar City still needs further clarification. Therefore, this study explores how the government can use factors from the Unified Theory of Acceptance and Use of Technology (UTAUT) to support micro and small enterprises in adopting technology to enhance their operations. This study will likely contribute to the growth of national income from micro and small enterprise sectors.

## METHOD

In this study, data was collected through a questionnaire that incorporated indicators and variables from other models, to measure the constructs of PE, EE, SI, FC, and BI. The questionnaire is divided into two parts, the first consisting of questions about the respondents' backgrounds, and the second addressing the main topic, with a total of 22 questions, 4 of which pertain to the former and 18 to the latter. Respondents are required to provide answers on a 5-point Likert scale, ranging from strongly disagreeing to strongly agreeing. The study was conducted among owners of micro and small-sized enterprise in Makassar City, including coffee shops, food outlets, laundries, grocery stores, simple lodgings, and boarding houses. Furthermore, the study spanned eight months, from March 2022.

Table 1. Operational Variables

Root Constructs, Definitions, and Items
<p>1. <b>Performance Expectancy (PE)</b>, "Refers to the perceived usefulness of using technology and influences an individual's intention to continue using it" Alwahaishi &amp; Snásel (2013)</p> <ul style="list-style-type: none"><li>• I believe the use of technology is very beneficial for my enterprise (PE1)</li><li>• Utilizing technology enables me to achieve my enterprise's marketing objectives (PE2)</li><li>• Utilizing technology as a marketing platform has increased my company's sales and profits (PE3)</li></ul>
<p>2. <b>Effect Expectancy (EE)</b>, "Represents the perceived level of effort required to use technology and affects user satisfaction, Williams et al. (2015)."</p> <ul style="list-style-type: none"><li>• My interaction with the app in helping my enterprise is clear and understandable (EE1)</li><li>• Operating social media pages to promote the company is simple for me. (EE2)</li><li>• I devote adequate time to promoting my enterprise on social media. (EE3)</li></ul>
<p>3. <b>Social Influence (SI)</b>, "is characterized by the belief that when adopters of ICT are influenced by positive feedbacks from social networks, they are more likely to have a strong intention to adopt a system"</p> <ul style="list-style-type: none"><li>• People influencing my behavior find marketing through social media use for my enterprise. (SI1)</li><li>• When using social media or other applications such as ex; GoJek, Grab, etc., my enterprise is supported by my friends and family through the "like" and "share" buttons, which show their support and encouragement. (SI2)</li><li>• The opinions of my customers play a major role in driving me to market my enterprise effectively using information technology. (SI3)</li></ul>
<p>4. <b>Facilitating Condition (FC)</b>, "Refer to the resources and knowledge that are available to explain the benefits of using technology and are considered to be greater than the monetary costs involved, conducted by Williams et al. (2015)"</p> <ul style="list-style-type: none"><li>• I have the necessary resources to access information technology to facilitate my enterprise (e.g. Wi-Fi connection, computer, smartphone) (FC1)</li><li>• I have adequate knowledge about marketing on social media by studying digital marketing (FC2)</li><li>• I have the necessary guides to help me operate social media pages for my enterprise (FC3)</li></ul>
<p>5. <b>Behavioral Intention (BI)</b></p> <ul style="list-style-type: none"><li>• I intend to continue to use ICT as my preferred social media marketing platform soon (BI1)</li><li>• I intend to design a social media marketing strategic plan for my social media pages (BI2)</li><li>• I plan to use ICT, like social media, for marketing purposes more often soon. (BI3)</li></ul>
<p>6. <b>Behavior to Use</b></p> <ul style="list-style-type: none"><li>• I feel very confident in marketing my enterprise using ICT (U1)</li><li>• Marketing through social media pages makes it easier for my enterprise to engage with new customers (U2)</li><li>• Marketing my social media pages has resulted in my enterprise gaining a positive reputation with online audiences (U3)</li></ul>

Source: Data Processed by Researchers (2023)



The study aims to survey a total of 176,637 SMEs located in Makassar City. To obtain a representative sample, expert opinions were sought to determine the minimum sample size. Bentler & Chou (1987) recommended a sample size of at least five times the number of free variables in the model, while Hoogland and Boomsma (1998) suggested a sample size of at least 10 times the number of the study variables. Ferdinand (2002) recommended multiplying the number of indicators by five to determine the sample size. As this study involves six variables and eighteen indicators, so the sample size was determined to be 180 respondents (ten times eighteen indicators). Also conforms to the ten-degree independent path rule of Hair *et al.* (2014). The questionnaire underwent a validation and reliability check before finalization, and necessary changes were made. Moreover, the SEM PLS software was utilized to assess the questionnaire's reliability. Table 1 shows the operational variable from this research.

To evaluate the validity and reliability of the outer model, the measurement model is assessed. The reflexive measurement model is evaluated using convergent and discriminant validity for indicators that form latent constructs, as well as Composite Reliability (CR) and Cronbach Alpha (CA) (Ghozali & Latan, 2015). Furthermore, the measurement model assesses the accuracy of the constructs with the validity test (reliability). The reliability test shows the accuracy, consistency, and precision of the instrument's measurement construction. CR is a better measure for testing construct reliability than CA, as the latter tends to underestimate it. In PLS, the R-Square value for each endogenous latent variable indicates the power to predict the best goodness-of-fit model. R-Square values indicate whether the exogenous latent affects endogenous variables, and the PLS R-Square results show the construct variance of the model. In addition to R-Square, the PLS structural model can be assessed using the Q<sup>2</sup> predictive relevance or predictive sample reuse (Ghozali, 2011).

## RESULT AND DISCUSSION

Data were analyzed using a two-step technique. The first step involves verifying the reliability, convergent validity, and discriminant validity of the measurement model. Also, the second step focuses on analyzing the structural model to determine the strength and direction of the relationships between the theoretical elements.

According to Zikmund *et al.* (2013), all measures of CR and CA, which are standard criteria for internal consistency, exceed the recommended minimum level of 0.70 for internal consistency reliability. The study statements that have a CR value of over 0.70 are considered reliable (Chin, 2010). To ensure convergent validity, the indicator's standard value needs to be at least 0.708 of the thresholds values, and each indicator's Average Variance Extracted (AVE) value must be at least 0.5 (Hair *et al.*, 2007). Table 2 presents the results, and the CR value was reduced to less than 0.70 to display the test results in Figure 1.

Figure 1. SEM PLS Results

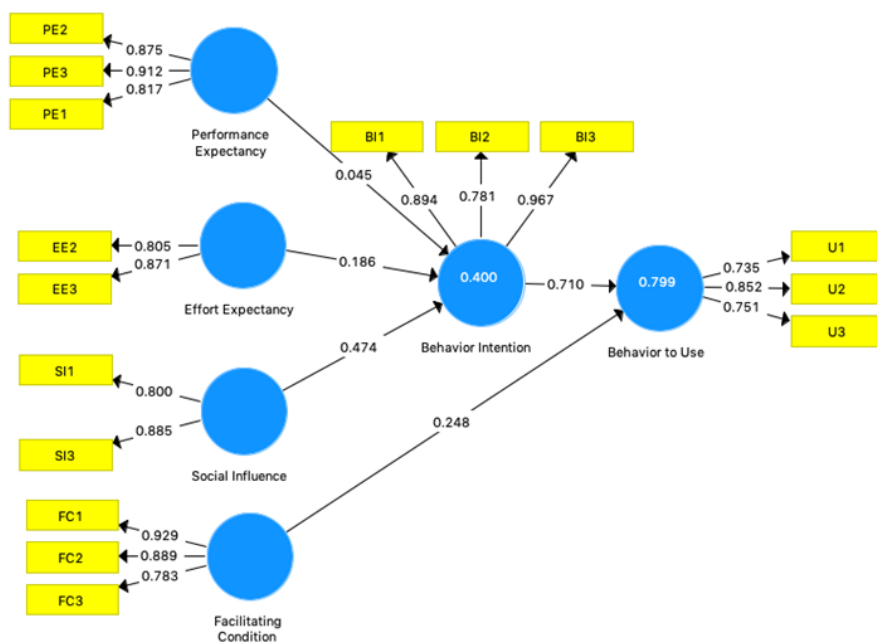


Figure 1 shows that the latent variable of PE can explain more than 81% of the variance in the three indicators, including PE1, PE2, and PE3. The latent variable of EE can account for the variance in the indicators of EE2 and EE3, which are both higher than 80%. Moreover, the latent variable of SI can explain over 80% of the variance in the indicators S1 and SI3. The latent variables of FC, BI, and behavior can explain more than 73% of the variance in their respective indicators. Overall, each latent variable has demonstrated the capacity to explain the variance in the indicators that measure it by more than 70%.

Table 2. Demographic Respondents

Items	Type	Frequency	Percentage
Gender	Male	144	80%
	Female	36	20%
Age	≤29	19	10.5%
	30–39	77	42.7%
	40–49	75	41.6%
	≥50	9	5%
Periods Time	≤2 Years Old	45	25%
	2–3 Years Old	95	52.7
	≥3 Years Old	40	22.3%
Type of Applications	Social Media	112	62.2%
	Online Payment ( <i>FinTech</i> )	38	21.1%
	Online Application (Grab, GoJek, etc)	135	75%
	Website	18	10%

Source: Data Processed by Researchers (2023)



**Table 3. Construct Reliability And Convergent Validity**

Construct	Item	Items Loading	CR	CA	Rho_A	AVE
PE	PE1	0.817	0.903	0.857	1.035	0.756
	PE2	0.875				
	PE3	0.913				
EE	EE2	0.805	0.824	0.851	0.954	0.703
	EE3	0.871				
	-	-				
SI	SI1	0.800	0.831	0.955	0.724	0.711
	-	-				
	SI3	0.885				
FC	FC1	0.929	0.902	0.835	0.836	0.755
	FC2	0.889				
	FC3	0.783				
BI	BI1	0.894	0.914	0.856	0.866	0.781
	BI2	0.781				
	BI3	0.967				
Behavior to Use	U1	0.735	0.824	0.865	0.720	0.610
	U2	0.852				
	U3	0.751				

Source: Data Processed by SEM PLS (2022)

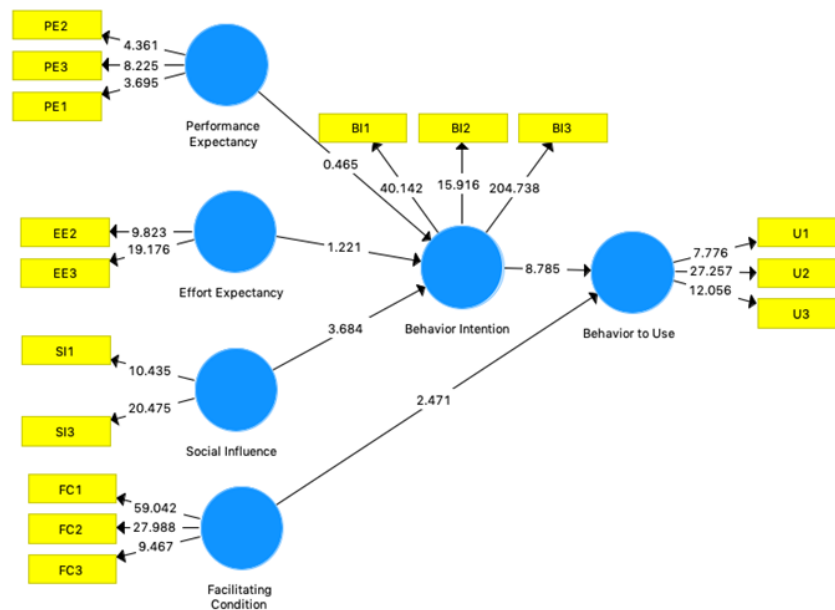
Table 2 shows that the study sample primarily comprises male enterprise owners in Makassar city, accounting for approximately 80% of the total respondents. A significant proportion of the participants, approximately 84.3%, fall within the age range of 30 to 49, indicating that many of the enterprise owners included in this study are in their prime working years. Regarding the type of ICT application used to support enterprise operations, 75% of the respondents reported using online motorcycle taxi applications, while only 10% used independent websites. The minority of respondents who use personal websites were mainly involved in industries such as printing, vehicle rentals, travel agencies, and tourism services. Based on Table 3, all variables have a CR and CA value greater than 0.7. It is then concluded that all variables used in this study are reliable.

Experiments were carried out to examine the direct and indirect effects of exogenous variables on endogenous ones. Table 4 presents the results of the loading procedure and the t-statistical value obtained from a sample of 180 individuals and 500 repetitions, which provide an overview of the study's influence test.

This study discovered that the SI variable significantly affects the behavioral intention of micro and small enterprise owners in Makassar City to use ICT. The results showed that SI indirectly influences the actual use of ICT through behavioral intention. As depicted in Table 1 and Figure 2, only two out of the three indicators of the SI variable passed the test with a construction value greater than 0.6. The indicator "When using social media or other applications such as ex, GoJek, Grab, and others. my enterprise

is supported by my friends and family through the "like" and "share" buttons, which shows their support and encouragement." This result indicates that enterprise owners who use ICT to support their enterprise feel a lack of social support, particularly from friends and family. Therefore, it is anticipated that the government can extend its support to promote the extensive use of ICT for micro and small enterprises in Makassar City.

Figure 2. Bootstrapping Result



This study showed that PE and EE insignificantly affect the BI or behavior use of ICT. The reason is that each variable's significance value is more significant than 0.05. PE and EE should be given special attention by infrastructure providers in Makassar City when anticipating and predicting the adoption of ICT by micro and small enterprise owners.

Table 4. Direct and Indirect Hypothesis Test

	Original Sample (O)	T Statistics ( O/STDEV )	P Values	Sample Mean (M)	Standard Deviation (STDEV)	Results
PE → BI	0.045	0.420	0.675	0.076	0.107	Not Supported
EE → BI	0.186	1.254	0.210	0.188	0.148	Not Supported
SI → BI	0.474	3.691	0.000	0.482	0.128	Supported
FC → BU	0.248	2.535	0.012	0.260	0.098	Supported
BI → BU	0.710	9.097	0.000	0.706	0.078	Supported
PE → BI → BU	0.032	0.403	0.687	0.053	0.079	Not Supported
EE → BI → BU	0.132	1.216	0.224	0.134	0.108	Not Supported
SI → BI → BU	0.336	3.644	0.000	0.338	0.092	Supported

Source: Data Processed by SEM PLS (2022)

The coefficient of determination is a valuable measure that assesses how effectively a model explains the variance in the data. This study's test results show that the PE, EE, SI, and facilitation conditions can explain the variance in the dependent variables of behavioral intention and behavior to use. The SI and FC exhibited the highest capacity to explain the variance in the data, with values of 0.843 and 0.599 (see Table 5). This result shows the significant influence of these variables on the intentions and behavior of micro and small enterprise owners regarding the use of ICT to operate their enterprises in Makassar City.

**Table 5. Determinant Coefficients**

	R Square	R Square Adjusted
Behavioral Intention	0.400	0.389
Behavior to Use	0.799	0.796

Source: Data Processed by SEM PLS (2022)

This study's structural model shows that PE, EE, and SI significantly influence the behavioral intention of micro and small enterprises regarding their use of ICT. Additionally, the "FC" variable indicates a significant impact on their behavior in using ICT. The model also shows that BI plays a crucial role in supporting the behavior of these enterprise owners in utilizing ICT. Overall, the model successfully explains 79.9% of the variance in the behavior of these enterprise owners concerning their use of ICT.

This study demonstrates the need to thoroughly understand users' attitudes and preferences towards ICT adoption of micro and small enterprise owners in Makassar City. As more and more technological innovations are introduced rapidly, and as they fail, it becomes increasingly important to gain insight into the determinants of adoption and usage.

Social influence significantly impacts adoption intentions as they increase adoption intentions if their peers, investors, shareholders, and other entrepreneurs with whom they deal sincerely advise them to adopt ICT. The results of Rozmi et al. (2019) and Piarna & Fathurohman (2019) show that the social environment has a strong interactive effect on influencing SME owners and, thus, their use of ICT. It is essential to use an ecosystem that encourages SME owners to feel more confident in using ICT for their business. Furthermore, facilitation significantly impacts adoption intentions, as SME owners will adopt ICTs if they are provided with easier access to them.

This study also reports that Facilitating Conditions positively and significantly affect Behavioral intention. Adopting ICT among micro and small enterprise owners in Makassar City is crucial as it can substantially benefit their enterprises. This condition is because the availability of ICT facilities can make it more convenient for enterprise owners to use ICT, saving them time for other activities. Even though Williams et al. (2015) found that FC could have been a better predictor of e-government usage, this contradicts the results of this study. However, Kim & Lee (2020) discovered that FC significantly affects SME owners' ICT adoption. This result implies that the increase in the distribution of facilities that support the use of ICT encourages SME owners to adopt it.

Venkatesh (2022) discovered that intention to use is a factor in how individuals use technology, which is in line with the results of this study. The intention to use ICT is a significant factor supported by perceived ease of use, usefulness, and subjective norm. This result shows that SME owners who believe they intend to use ICT are more likely to adopt it in their enterprise. The number of SME owners adopting ICT is expected to be high as their intention increases. Additionally, the habit of using technology among SME owners in Makassar City plays a crucial role. This result suggests that users' familiarity with ICT through prior experience or favorable FC positively encourages their adoption of it.

In summary, this study shows that several factors, including SI, FC, and BI, can influence the BU of micro and small enterprise owners in Makassar City when adopting ICT. The statistical analysis results prove that among these factors, SI was found to have the most substantial impact, indicating that micro and small enterprise owners are more likely to adopt ICT when receiving positive feedback from their social networks or environment.

## **CONCLUSION**

This study aims to investigate the utilization of ICT among micro and small enterprise owners in Makassar City. The government is committed to promoting ICT adoption by SMEs to facilitate enterprise-customer interactions and boost revenue. This study showed that certain factors, such as PE and EE, insignificantly influence ICT adoption among micro and small enterprise owners in Makassar City. Theoretically, the results show that usage intentions and government initiatives to simplify ICT services are critical in facilitating technology adoption. A practical perspective shows that ICT services' quality still needs to improve. The findings indicate that enterprise owners remain concerned about data security, and some have limited access to the internet.

To gain insight into the utilization of ICT by micro and small enterprise owners in Makassar City, the government must first comprehend their needs, attitudes, and ways of life. This information can then be leveraged to support the city's growth of micro and small enterprises. The study focuses on three indirect drivers that affect how micro and small enterprise owners in Makassar City plan to use ICT services and how they use them. The further review should be conducted to investigate the impact of age, educational level, and trust on the adoption of ICT by micro and small enterprise owners in Indonesia.

The results of this study have important policy implications and strategic factors for switching and utilizing ICT. These insights are precious for ICT service providers in Indonesia. The study's results suggested a greater emphasis on improving factors such as PE and EE, which insignificantly affect behavioral intention and behavior to use. Future reviews, IT professionals, marketing professionals, and micro- and small enterprise owners can use the results of this study to comprehend the threat factors and opportunities in transitioning to using ICT for their enterprises. Additionally, the results can aid in making informed decisions about technology to support the marketing strategies of micro and small enterprise owners in Makassar City.

## REFERENCES

- Alwahaishi, S., & Snásel, V. (2013). Acceptance and Use of Information and Communications Technology: A UTAUT and Flow Based Theoretical Model. *Journal of Technology Management & Innovation*, 8(2), 61–73.
- Ardito, L., Raby, S., Albino, V., & Bertoldi, B. (2021). The Duality of Digital and Environmental Orientations in the Context of SMEs: Implications for Innovation Performance. *Journal of Business Research*, 123, 44–56.
- Arianto, B. (2020). Pengembangan UMKM Digital di Masa Pandemi Covid-19. *ATRABIS: Jurnal Administrasi Bisnis*, 6(2), 233–247.
- Bala, H., & Feng, X. (2019). Success of Small and Medium Enterprises in Myanmar: Role of Technological, Organizational, and Environmental Factors. *Journal of Global Information Technology Management*, 22(2), 100–119.
- Bentler, P. M., & Chou, C. P. (1987). Practical Issues in Structural Modeling. *Sociological Methods & Research*, 16(1), 78–117.
- Davis, F. D., Granić, A., & Marangunić, N. (2023). *The Technology Acceptance Model 30 Years of TAM*. Berlin: Springer.
- El Ouiridi, M., El Ouiridi, A., Segers, J., & Pais, I. (2016). Technology Adoption in Employee Recruitment: The Case of Social Media in Central and Eastern Europe. *Computers in Human Behavior*, 57, 240–249.
- F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial Least Squares Structural Equation Modeling (PLS-SEM) An Emerging Tool in Business Research. *European Business Review*, 26(2), 106–121.
- Ferdinand, A. (2014). *Metode Penelitian Manajemen: Pedoman Penelitian untuk Penulisan Skripsi Tesis dan Disertasi Ilmu Manajemen*. Semarang: BP Undip.
- Ghozali, I. (2011). *Aplikasi Analisis Multivariate Dengan Program SPSS*. Universitas Diponegoro.
- Ghozali, I., & Latan, H. (2015). *Partial Least Squares: Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.0 untuk Penelitian Empiris*. Semarang: Badan Penerbit UNDIP.
- Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). Research Methods for Business. *Education+ Training*, 49(4), 336–337.
- Hoogland, J. J., & Boomsma, A. (1998). Robustness Studies in Covariance Structure Modeling: An Overview and a Meta-Analysis. *Sociological Methods & Research*, 26(3), 329–367.
- Kim, J., & Lee, K. S.-S. (2020). Conceptual Model to Predict Filipino Teachers' Adoption of ICT-based Instruction in Class: Using the UTAUT Model. *Asia Pacific Journal of Education*, 42(4), 699–713. <https://doi.org/10.1080/02188791.2020.1776213>.
- Lanlan, Z., Ahmi, A., & Popoola, O. M. J. (2019). Perceived Ease of Use, Perceived Usefulness and the Usage of Computerized Accounting Systems: A Performance of Micro and Small Enterprises (MSEs) in China. *International Journal of Recent Technology and Engineering*, 8(2), 324–331.

- Majinda, C. (2019). Predicting Intention and Use of Social Media Marketing: Application of the Unified Theory of Acceptance and Usage of Technology Framework. (*Unpublished Thesis*). Botswana: University of Botswana.
- Nurjannah, N., Erwina, E., Basalamah, J., & Syahnur, M. H. (2022). The Impact of E-CRM and Customer Experience on E-Commerce Consumer Loyalty Through Satisfaction in Indonesia. *MIX: Jurnal Ilmiah Manajemen*, 12(1), 56-69.
- Piarna, R. (2019). Adopsi E-Commerce pada Umkm di Kota Subang Menggunakan Model UTAUT. *Jurnal Ilmiah Ilmu dan Teknologi Rekayasa*, 1(2).
- Rupeika-Apoga, R., Petrovska, K., & Bule, L. (2022). The Effect of Digital Orientation and Digital Capability on Digital Transformation of SMEs during the COVID-19 Pandemic. *Journal of Theoretical and Applied Electronic Commerce Research*, 17(2), 669–685.
- Rogers, C. R. (1961). The Process Equation of Psychotherapy. *American Journal of Psychotherapy*, 15(1), 27-45.
- Rozmi, A. N. A., Bakar, M. I. A., Abdul Hadi, A. R., & Imran Nordin, A. (2019). Investigating the Intentions to Adopt ICT in Malaysian SMEs using the UTAUT Model. In: Zaman, H. B., Smeaton, A. F., Shih, T. K., Velastin, S., Terutoshi, T., Ali, N. M., & Ahmad, M. N. (Eds). *Advances in Visual Informatics, IVIC 2019*. Cham: Springer.
- Sarfiah, S. N., Atmaja, H. E., & Verawati, D. M. (2019). UMKM sebagai Pilar Membangun Ekonomi Bangsa. *Jurnal Riset Ekonomi Pembangunan*, 4(2), 137–146.
- Taiwo, A. A. (2019). Users Behavioral Intention Towards eGovernment in an African Developing Country. In: Khosrow-Pour, M (Ed). *Advanced Methodologies and Technologies in Government and Society*, 290–304. Hershey, PA: IGI Global.
- Thaha, A. F. (2020). Dampak Covid-19 Terhadap UMKM di Indonesia. *BRAND: Jurnal Ilmiah Manajemen Pemasaran*, 2(1), 147–153.
- Venkatesh, V. (2022). Adoption and Use of AI Tools: A Research Agenda Grounded in UTAUT. *Annals of Operations Research*, 308, 641-652. <https://doi.org/10.1007/s10479-020-03918-9>.
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (Eds). (2010). *Handbook of Partial Least Squares, Vol. 201*. Berlin: Springer.
- Williams, M. D., Rana, N. P., & Dwivedi, Y. K. (2015). The Unified Theory of Acceptance and Use of Technology (UTAUT): A Literature Review. *Journal of Enterprise Information Management*, 28(3), 443–488.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods*. New Jersey: Cengage learning.